

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A gasification boiler for burning bales of straw, the boiler comprising:

a fuel and gasification chamber configured to receive a bale of straw, the chamber closable by a filling door and having air feeds and depressions for collecting and holding ash resulting from the combustion of the straw, the depressions disposed adjacent to a grating arranged at the bottom of the fuel and gasification chamber and configured to allow coarse straw ash particles to completely combust and not enter a flow of a combustion gas;

a combustion chamber situated below the grating and configured to receive and combust the combustion gas;

a secondary combustion chamber connected to an outlet of the combustion chamber configured to further receive and combust the combustion gas; and

a cylindrical ash separator for collecting fine straw ash particles located downstream from the secondary combustion chamber and having an inlet connected at the top tangentially to an outlet of the secondary combustion chamber, the ash separator having an outlet connected to a heat exchanger.

2. (Previously Presented) The gasification boiler as claimed in claim 1, characterized in that the depressions of the fuel and gasification chamber are of half-shell-shaped design and run parallel to the combustion chamber and each depression has a small door for the removal of coarse straw ash.

3. (Previously Presented) The gasification boiler as claimed in claim 1 characterized in that the secondary combustion chamber is cylindrical and connected at the bottom tangentially to the outlet of the combustion chamber, so that the combustion gas rises therein in a swirling manner causing fine straw ash particles to accumulate at a bottom of the secondary combustion chamber which is closed at the top by a cover.

4. (Previously Presented) The gasification boiler as claimed in claim 1 characterized in that a substantially vertical pipe is arranged centrally within the ash separator, the pipe having a lower opening approximately halfway up a height of the ash separator.

5. (Previously Presented) The gasification boiler as claimed in claim 4, characterized in that a circular baffle plate is fitted below the opening of the pipe in such a manner that a narrow annular opening for the depositing of the fine ash particles between an outer wall of the ash separator and the baffle plate, and in that the ash separator can be closed at the top by a cover.

6. (Previously Presented) The gasification boiler as claimed in claim 1 characterized in that the secondary combustion chamber, the ash separator and the heat exchanger are connected in a framework to form a unitary structure.

7. (Previously Presented) The gasification boiler as claimed in claim 2 characterized in that the secondary combustion chamber is cylindrical and connected at the bottom tangentially to the outlet of the combustion chamber so that the combustion gas rises therein in a swirling manner and in that the combustion chamber can be closed at the top by a cover.

8. (Previously Presented) The gasification boiler as claimed in claim 2 characterized in that a substantially vertical pipe is arranged centrally within the ash separator, the pipe having a lower opening approximately halfway up a height of the ash separator.

9. (Previously Presented) The gasification boiler as claimed in claim 3 characterized in that a substantially vertical pipe is arranged centrally within the ash separator, the pipe having a lower opening approximately halfway up a height of the ash separator.

10. (Previously Presented) The gasification boiler as claimed in claim 2

characterized in that the secondary combustion chamber, the ash separator and the heat exchanger are connected in a framework to form a unitary structure.

11. (Previously Presented) The gasification boiler as claimed in claim 3 characterized in that the secondary combustion chamber, the ash separator and the heat exchanger are connected in a framework to form a unitary structure.

12. (Previously Presented) The gasification boiler as claimed in claim 4 characterized in that the secondary combustion chamber, the ash separator and the heat exchanger are connected in a framework to form a unitary structure.

13. (Previously Presented) The gasification boiler as claimed in claim 5 characterized in that the secondary combustion chamber, the cylindrical ash separator and the heat exchanger are connected in a framework to form a unitary structure.

14. (Currently Amended) A gasification boiler for burning an entire bale of straw at one time, the boiler comprising:

a fuel and gasification chamber configured to receive a bale of straw, the chamber closable by a filling door and having air feeds and depressions for collecting and holding ash resulting from the combustion of the straw, the depressions disposed adjacent and parallel to a longitudinal grating arranged at the bottom of the fuel and gasification chamber and configured to allow coarse straw ash particles to completely combust and not enter a flow of a combustion gas;

a combustion chamber situated below the grating and configured to receive and combust the combustion gas;

a cylindrical secondary combustion chamber configured to further receive and combust the combustion gas connected at the bottom tangentially to an outlet of the combustion chamber so that the combustion gas rises therein in a swirling manner causing fine straw ash particles to accumulate at a bottom of the secondary combustion chamber;

a cylindrical ash separator for collecting fine straw ash particles located

downstream from the secondary combustion chamber and having an inlet connected at the top tangentially to an outlet of the secondary combustion chamber to force the fine ash particles against an outer wall of the ash separator, the ash separator having a substantially vertical pipe arranged centrally therein, the pipe having a lower opening approximately halfway up a height of the ash separator;

a circular baffle plate fitted below the opening of the pipe in the ash separator such that a narrow annular opening exists between the outer wall of the ash separator and the baffle plate to allow for the deposition of the fine ash particles at the bottom of the ash separator after it is pressed against the outer wall of the ash separator; and

a heat exchanger connected to an outlet of the ash separator.